



Human Cytomegalovirus: Recent Advances, Novel Targets and Vaccines

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Message from the Guest Editors

Dear Colleagues,

Human cytomegalovirus (HCMV) is the most common infectious cause of congenital malformations, with developmental delay, sensorineural hearing loss and fetal death in 10-15% of cases. HCMV can also cause severe disease in immunocompromised patients (HIV positive and solid organ transplant or hematopoietic stem cell transplant recipients). Currently, there is no approved vaccine for the prevention of CMV infection. Three major molecules, ganciclovir (GCV), cidofovir (CDV) and foscarnet (FOS), all targeting the HCMV polymerase pUL54, are routinely used for prevention and treatment of HCMV infection in the transplant setting. In these patients, emergence of CMV drug-resistance is a growing therapeutic challenge, and these drugs are not recommended for administration in pregnant women. Developing low toxicity drugs and vaccines are accordingly a major public health priority.

This Special Issue focuses on the recent development of novel targets, HCMV drugs, on existing vaccines in development, and recent novel advances such as mRNA prophylactic vaccines.

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Message from the Editor-in-Chief

Vaccines (ISSN 2076-393X) has had a 6-year history of publishing peer-reviewed state of the art research that advances the knowledge of immunology in human disease protection. Immunotherapeutics, prophylactic vaccines, immunomodulators, adjuvants and the global differences in regulatory affairs are some of the highlights of the research published that have shaped global health. Our open access policy allows all researchers and interested parties to immediately scrutinize the rigorous evidence our publications have to offer. We are proud to present the work and perspectives of many to contribute to future decisions concerning human health.

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